



The economy and quality of life of Gulf coastal communities is inextricably linked to healthy coastal and marine resources. The sustainability of the Gulf's marine resources is under increasing pressure from land development and coastal and commercial activities. Comprehensively identifying and characterizing Gulf habitats will lead to informed decisionmaking and better direct coastal management at the ecosystem level.

### ***Habitat Characterization Strengths: Existing Agency Initiatives***

State and federal programs have made significant advances over the last few years:

- Gulf states are evaluating and characterizing habitats of the state.
- The Gulf Ecological Management Site Program identifies geographic areas of special significance.
- National Estuarine Research Reserves are characterizing their sites.
- National Estuary Programs are mapping and characterizing habitats within their boundaries.
- National Marine Sanctuaries are mapping and characterizing habitats under their management.
- Texas adopted a comprehensive *Seagrass Conservation Plan*.
- Texas is implementing a Coastal Erosion Planning and Response Act.
- The Gulf States Marine Fisheries Commission is addressing fisheries habitat issues.
- Increased remote sensing technologies such as Landsat.

### ***Habitat Characterization Challenges and Barriers***

The states face a number of challenges in adequately characterizing the habitats of their coastal land and waters. Barriers include:

- Gulf states are managing submerged aquatic resources with sparse data.
- New technologies for identifying and characterizing habitats are costly and labor intensive.
- The potential of these new technologies is realized only with comprehensive user training.
- Remote sensing often involves labor intensive ground truthing.
- Lack of a comprehensive inventory of available habitat information.
- Rapid development of Gulf coastal areas is altering the extent and type of habitat without documentation of baseline information.

## ***Solutions and Opportunities to Improve Habitat Characterization***

While the Gulf states face similar challenges in adequately characterizing coastal upland and submerged land habitats, opportunities exist to collaborate:

- The Coastal and Estuarine Land Conservation Program provides an opportunity for thoughtful state planning and federal assistance for priority land acquisitions.
- Improved mitigation through permitting.
- Standardize mapping and data collection techniques and methodologies.
- Identify gaps in existing habitat mapping information and set priorities for acquiring additional data.
- Utilize high resolution bathymetry (LIDAR from 0 to 120 feet) as a first step.
- Involve land owners and developers in best management practice design and implementation.

## ***Needs from a State-Federal Partnership to Improve Habitat Characterization***

- Additional remote sensing activities and ground truth data collection.
- Ensure remote sensing data are turned into useful information for managers.
- Identify habitat characterization data gaps and developing a plan to address those gaps.
- Increasing the Gulf states' success and competitiveness in the various federal grants process.
- Sharing data and other information collected by state and federal agencies.
- Training and technical assistance for states to increase capacity.

